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60th ANNUAL FINANCIAL SURVEY of the RIGID PAPER BOX INDUSTRY

Prepared by
Dr. Robert D. Landel
The Colgate Darden
Graduate School
of
Business Administration
University of Virginia
Charlottesville, Va.

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Issued for The Use of Members of
NATIONAL PAPERBOX & PACKAGING ASSOCIATION, INCORPORATED
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60th ANNUAL FINANCIAL SURVEY

of the

RIGID PAPER BOX INDUSTRY
Covering the year 1984

*** THE 1984 SURVEY ***

It has been your Association's belief that these financial Surveys and projections of the R.P.B. Industry performance statistics are valuable to the executives who are seeking an externally oriented benchmark of their company's performance. This 60th Survey provides an extensive appraisal of the past year's economic and industry performance indicators. By comparing your company's performance (as detailed in the computer-prepared personalized Company Supplement) with that of the total industry, or with a specific geographic area or sales size, you can better assess your company's goals and alternative improvement actions needed to reach those goals.

I. EXCELLENCE - SO WHAT?

American businessmen have been subjected to many books and articles recently about how to manage their business better. We have read about excellence: the search for it, how to manage it, how to create it and, most recently, the passion for it. Certainly a book on how to excel at excellence is on its way. Quality is another popular subject. We've been told that not only is it free, but that improved quality will reduce costs, improve productivity, and boost employee and customer morale. Another popular book on management explains how we can do all this in just one minute. And if all that is not enough, we have plenty of sources to explain how the Japanese have attained success. But in spite of all this advice, most of us run our business about the same way we did last year and will probably not change significantly by this time next year. Most of these sources give us a vision of the ideal - IBM service or innovation at 3M. Unfortunately most of this advice falls short on how to achieve success and gives little guidance about what we should do now (today, tomorrow, next week) to move toward an "excellent" company.

The fact is that most of us know of many items that should be done to improve our business. But the common complaint among managers and business owners is the lack of time to carry out our plans. There is always more to do than we can get done. Many authors have written about time management and several offer solid, practical advice about how to increase one's effectiveness with time. Alan Lakein, in his best selling book How To Get Control of Your Time and Your Life, suggests that our day-to-day activities should be directed toward our lifetime goals. If our secret, lifetime ambition is to become a concert pianist, then today we should schedule a lesson or practice for thirty minutes. Everyday we should find something, no matter how small, that moves us toward that goal: attend a concert, practice, buy a recording of a famous artist, visit a talented performer and seek his advice, etc. Lakein suggests that the secret to managing your time for maximum effectiveness is not looking at every spare minute and filling it with a task. Rather, time should be used to move toward a few specific goals in small steps, one at a time. We should make a decision each day to act, even with the smallest item, on our lifetime goals.

Although Lakein focuses on personal objectives, the same process can be used to improve a company. The key is setting goals or objectives for your business. Management by objectives is a well worn but often ineffective management tool; however, Lakein's method is somewhat orthodox and can provide a refreshing way to look at your company. The process is as follows:

1. Set aside thirty minutes to be by yourself and uninterrupted. Take a blank sheet of paper and for five minutes write as fast as you can your lifetime goals or, in the case of your firm, the very long range goals for the company. The goals should be the basic dreams you hold for yourself or your company. You should suspend your normal rational judgement and not consider current position or constraints in generating the list. It should include things that just pop into mind such as making your company's name a household word, becoming the largest firm in the paperbox industry, or achieving status as a recognized innovator.

2. Repeat the process with a five year time frame in mind. Goals could include doubling profits, introducing a new product line, or purchasing a new facility. Again only consider the end without worrying about the means at this time.

3. Finally, repeat the process assuming you would leave the business completely in six months. Items may include signing on a big, previously elusive customer, changing from a particularly troublesome supplier, completing documentation of a technical process, or performing a salary and performance review for all personnel.

4. Revise and clarify the lists by adding further descriptions of your expanded thoughts. Select the three most important goals from each list. This gives you a total of nine goals.

5. Select three from the list of nine that you would be willing to work on immediately. Willingness to spend twenty minutes on a goal in the next two days will help clarify the true real priority of important goals. Set the goals aside for a week and review again.

6. After building a consensus with partners or top managers, generate a list of activities required to accomplish the goals. This critical part of the process must be periodically revised and updated. Break down the activities into doable items. Often an activity will add more items to do, such as following an interview or research on a particular subject.

7. Place an activity from each goal on your daily "to do" list, or delegate it to a responsible subordinate. Make it a priority item during each day.

This seemingly simplistic goal-setting exercise has produced significant results for individuals who have taken it seriously. The process forces one to focus and take action on important goals, rather than jump from one problem to another without a direction. Frequent updating and revising of the activities lists will continue to keep goals in the forefront. Daily action, no matter how small, will provide momentum that transcends the daily problems that often obscure long range goals.

Several authors have suggested a "Quality" perspective as the ideal vehicle for introducing business change and improvement. When used as the focus for our daily goal activities, a product or process quality effort can provide greater stimulus and effectiveness than an otherwise bland or unexciting activity. If the aspiring concert pianist expends his energy not just on learning a particular concert, but rather seeks to perform it

perfectly, he will improve his chances of achieving his ultimate goal. In his pursuit to play the piece perfectly, (ie., a quality effort) he may have the piano tuned or ask the advice of a very successful teacher - steps he may have otherwise overlooked, if learning the piece were his only listed activity. Once played with perfection, the accomplishment will serve a source of pride and encouragement and will be a standard for future work.

The Quality perspective has several advantages. First it has universal application throughout the organization from the production worker to the secretary for the president. Quality, when used in this sense, includes not only the final product but also the internal processes- customer service, work atmosphere, and production process. A second reason for the Quality effort is that everyone in an organization can embrace it. Unlike productivity improvement or cost cutting programs, a quality emphasis, like apple pie and patriotism, will find few enemies and can produce the same productivity and cost results. Improvements in production processes and product quality often result in less scrap, rework, and returned products. The final reason for the Quality perspective is the customer. Improved quality in products and services offered will no doubt be recognized by the customers and rewarded with increased sales and profits.

The excellence achieved by some of the famous American companies requires many years of effort, but daily action aimed at improving quality and achieving long-term goals can begin to move a business in the right direction. A superficial program directed at immediate results will no doubt lead to disappointment. The goals of your company will be best achieved through a dedicated and sustained Quality effort carried by day-to-day activities. Attached is a list of daily activities used by companies to move toward their goals. It is not meant to be a "to do" list but it does provide some ideas and suggestions. The best activity list will be one that is generated and acted upon by yourself and your employees.

Time Management

1. Purchase and read Alan Lakein's book, How to Get Control of Your Time and Your Life.

2. Adopt Lakein's list method for one week to test effectiveness.

3. Complete two 30 minute goal setting sessions the first week and 15 minutes each day the next week to list activities.

Quality

1. Call your top three customers to determine what your firm does that attracts their business. Ask how your firm can exceed the minimum requirements for your products. Are there additional services you can provide to your customer such as education, repair, delivery, schedules, complementary products, etc?

2. Repeat the process for your three newest customers.

3. Repeat the process for three customers you lost last year.

4. Form customer teams of all your interested personnel. The group should consist of managers, production workers, salesmen, secretaries and all support staff that are interested. The customer team would in effect adopt a particular customer and review orders, monitor performance (returns, quality requirements, delivery), visit the customer's facility, etc.

5. Display rejected or poor quality goods. One manufacturer, instead of discarding bad items, stacked them in the aisles to emphasize the cost impact of rejected or poor quality goods. Quality circles were formed later to discuss the causes or the problems and to suggest solutions.

Work Environment/Personnel

1. One plant manager decided that cleanliness was a goal in his facility. He purchased bright orange trash cans (equivalent of one per employee) and placed them throughout the plant. He then spent 15 minutes each morning and afternoon picking up trash and cleaning. Other employees later joined in.

2. Another had flowers planted around the outside of the building. He awarded large potted plants for top quality improvement suggestions.

3. Parking places normally reserved for managers were awarded to exceptional employees for a month. The employees were selected by their peers for superior production or quality performance.

4. A president treated five randomly selected employees to lunch each month to discuss what was on the employees' minds.

5. Many firms build a family atmosphere through a number of family oriented events including picnics, sporting events, organized trips to area attractions, and plant/facility open houses. These events are often used to publicly recognize outstanding efforts or achievements.

Production and Office Processes

1. Periodically pick a report or piece of paperwork commonly used and critique its usefulness, form, and intentions. Have users and producers determine if the item can be simplified, eliminated, or combined with another report.

2. Review how a customer places orders and receives the product. Have responsible employees determine ways to make it simplier, quicker, or easier for the customer.

3. Look at the impact of ordering less or keeping less on hand of your largest inventory items.

4. Provide additional education and training to employees - even if it is outside their direct responsibility. One manager provided training sessions to janitorial employees on the control system on a large, complex process line they cleaned regularly. Two months later one of the employees noticed a damaged sensor that supervisors troubleshooting the line overlooked. The janitorial employee recognized the importance of the sensor following the training.

II. 1984 AND BEYOND

General Economy - 1984

The economic recovery that began in the first quarter of 1983 continued to gain strength in 1984. With a 6.8%

growth in real GNP in 1984, the U.S. economy experienced the strongest recovery in 30 years. The growth was driven by all sectors of the economy, but from Table 1A we see that the growth in durable goods and private investment, primarily nonresidential, led the recovery. Although strong growth is usually accompanied by inflation, Table 1B shows that the overall GNP deflator dropped and the Consumer Price Index rose a moderate 4.1%. Inflation rates for producer prices and wage rates also remained at moderate rates.

Interest rates rose slightly in 1984 but not enough to slow investment and spending significantly. Two sectors particularly sensitive to interest rates continued to grow respectably. Housing starts stabilized at 1.75 million units after growing 60% the year before. Auto sales increased to 10.39 million units or 13% after 15% growth the previous year.

Other areas that indicate a strong economy include the drop in unemployment to 7.5% from 9.6% and the increase in industrial capacity utilization to 81.7% from 75.2% a year earlier. A summary of primary economic indicators is given in Table 1C.

The one disappointing area of the economy was the growth of imports and the deterioration of the U.S. balance of trade position. The dollar climbed to record levels in 1984. This was primarily due to the international confidence in the U.S. economy and the subsequent steps taken to move capital into the U.S. to take advantage of the growing economy. However, as the dollar climbed, foreign goods became cheaper in the U.S. and American goods became more expensive abroad. The result, as seen in Table 1E, was a trade deficit of $123.1 billion, $36 billion of which was the U.S. trade deficit with Japan. These conditions have hurt U.S. exporters and, to a degree, limited the growth of the U.S. economy.

Another area of concern brought to the spotlight in 1984 was the federal budget deficit. The total deficit ballooned to over 200 billion dollars in the 1983 and hit $185 billion in 1984. Projected deficits are the same magnitude as shown in Table 1E and will lead to a doubling of the federal debt in just 5 years to 2 trillion dollars in 1986. The effect of these deficits on the U.S. economy is not clear. The high interest rates that were expected to follow the heavy government borrowing have not materialized but fears of future increases still remain prevalent among experts. Increased taxes are another feared consequence of the deficits, but President Reagan has promised to balance the budget by the end of the decade with cuts in government spending.

1985 and Beyond

Forecasting economic performance is difficult. But recent moves in several important indicators do give a strong indication of the direction the economy will take.

The first quarter GNP growth in 1985 was a disappointing 0.7% (annual rate), substantially below the Reagan goal of 4%. Strong foreign imports are to blame for much of the reduced growth. Unemployment at 7.4% and slow capital spending projections fueled speculation that the economy was headed for a recession. However, recent money supply and discount rate actions by the Federal Reserve have given many economists the confidence to predict a healthy 3% annual growth rate in GNP through the end of 1985.

The Federal Reserve recently reduced the discount rate, the rate it charges member banks to borrow funds, from 9.5% to 8.0%, the lowest since 1977. The major banks reacted by dropping their prime rate, the rate at which they loan to their best customers. The result in lower rates to businesses and consumers should generate additional growth in business investment, in new equipment, and consumer spending in housing and autos. Several economists are predicting even lower interest rates by the end of 1985.

The Federal Reserve is also stimulating the economy through monetary policy. The money supply as measured by M1 (Cash, demand deposits and other liquid instruments) grew at a faster annual rate in the first quarter of 1985 than in 1984. Although this policy could result in inflation if the money supply grows too fast, most economists feel that inflation in 1985 will be held to a 4% annual rate.

Another area for optimism that the economy will continue its recovery is the recent decline in the strength of the dollar. Although the decline was small, it indicates that the dollar's advance against major currencies may be at its peak. Further weakening of the dollar would result in lower prices in American goods in foreign countries and, thus, an increase in exports. There is little hope, however, that the trade deficit will be reduced significantly in 1985 or the foreseeable future.

The new tax plan recently unveiled by Reagan appears to offer tax simplification as its main benefit. The proposed changes will provide only a small boost to the economy. White House officials project an increase in real GNP of 1.5% by 1995 or about 0.1% a year for 10 years. The plan will result in a shifting of the tax

burden from individuals to business and a simplification of investment incentives for business. Generally the new plan will favor hi-tech industries with capital gains protection and damage the real estate sector with reduced investment incentives. Economists raise one concern about the proposed changes. The new plan has the potential to reduce total tax revenue and add pressure to the growing budget deficits.

The Federal deficit and public confidence in the U.S. banking system are two items noted as areas of uncertainty in the economy. Although the White House and Congress have recently made serious moves toward reducing the deficit, it remains a cloud on the horizon. Foreign investors have kept U.S. interest rates down by financing a part of the federal debt. Should the dollar drop significantly in strength, foreign investors could lose confidence in the U.S. economy and withdraw some funds flowing to the U.S. market. The result would be higher interest rates for not only government bonds, but the rest of the market as well. Economists are not yet predicting such a scenario, and recent efforts in Congress to trim the deficit are encouraging.

Recent failures of Savings and Loan institutions in Ohio and Maryland have had an unsettling effect on public confidence in the nation's financial system. Third world debt is still a concern and speculation of lower oil prices would not help the situation. A few bank failures or emotionally driven "runs" on savings and loans could damage capital markets and stifle the economy.

In summary, most experts predict a healthy 3% growth through 1985 with inflation stable at 5% and unemployment remaining at a little over 7%.

TABLE 1A

Economic Growth

Percent Change, Annual Rate*

	1980	1981	1982	1983	1984
GNP Components	-0.3%	2.5%	-2.1%	3.7%	6.8%
Personnal Consumption	0.5%	2.7%	1.4%	4.8%	5.3%
Durables	-6.6%	2.7%	-0.9%	11.8%	12.9%
Non-Durables	0.7%	1.9%	0.5%	3.3%	4.7%
Services	2.7%	3.3%	2.9%	2.7%	3.2%
Residential Investment	-21.1%	-5.4%	-15.9%	41.1%	12.3%
Nonresidential Investment	-2.4%	5.2%	-4.7%	1.4%	20.0%
Federal Government	4.2%	3.8%	5.6%	1.1%	5.3%
State & Local Government	1.0%	-1.0%	-0.5%	0.1%	2.3%
Industrial Production Index	-3.6%	2.6%	-8.1%	6.4%	10.7%
Plant & Equip. Expenditures	+10.0%	+9.43%	-2.3%	-4.8%	+14.0%
Housing Starts (millions)	1.31	1.10	1.07	1.71	1.75
Auto Sales in U.S. (millions)	8.97	8.53	7.98	9.18	10.39

*Unless otherwise stated

TABLE 1B

Prices

Annual Percent Change

	1980	1981	1982	1983	1984
GNP Price Deflator	9.2%	9.6%	6.0%	3.8%	3.7%
CPI - Wage Earners	13.5%	10.4%	6.1%	3.2%	4.1%
Producer Price Index (Finished Goods)	13.5%	9.2%	4.0%	1.6%	2.1%
Wage Rates (Production Workers)	6.9%	8.5%	4.7%	5.0%	4.8%

Table 1C

PERFORMANCE INDICATORS

Economic Indicators

(Billions Current Dollars Unless Otherwise Stated)

	1984	1983	% Change
GNP (1972$ - i.e. Inflation Adjusted)	1637.3	1534.7	6.8%
CNP Real $	3662.8	3304.8	10.8%
Gross Private Domestic Investment	637.8	471.6	35.2%
Non Residential	425.7	352.9	16.4%
Residential Structures	153.9	132.2	20.6%
Government Purchases of Goods and Services	747.4	685.5	9.0%
National Personal Income	3012.1	2744.2	9.8%
Wage & Salary Disbursements	1804.0	1659.2	8.7%
Other Labor Income	195.5	173.1	12.9%
Disposable Income	2576.8	2340.0	10.1%
Civilian Employment (Thousands)	113,544	111,550	1.8%
Unemployment Rate (%)	7.5%	9.6%	-2.1%
Total Industrial Production Index 1967=100	163.3	147.6	10.6%
Total Manufacturing Production Index 1967=100	164.8	148.2	11.2%
Capacity Utilization % Total Manufacturing	81.7%	75.2%	6.5%
Paper & Allied Products Production Index 1967=100	174.4	164.2	6.2%
Producer Price Index for Pulp Paper & Allied Products	318.3	298.1	6.8%

TABLE 1D

Interest Rates (Nominal%)

	1980	1981	1982	1983	1984	April 1985
Federal Reserve Discount Rates	11.77	13.41	11.02	8.50	8.80	8.00
Prime Rate	15.27	18.87	14.86	10.79	12.04	10.50
New Home Loans	12.66	14.70	15.14	12.57	12.38	11.60
Long Term Government Bonds	11.46	13.91	13.00	11.10	12.44	11.43

TABLE IE

Federal Budget and Trade Deficits (Billions $)

	1980	1981	1982	1983	1984	Projected 1985
Federal Budget Deficit	-73.8	-78.9	-127.9	-207.8	-185.3	-222.2
Trade Deficit	-36.2	-39.6	-42.6	-69.3	-123.1	-180.2

III. THE R.P.B. INDUSTRY'S ECONOMIC PERFORMANCE - 1984
(Tables 2A and 2B and Charts 1 and 2)

Industry sales for 1984 increased 6.0% over 1983 to a total of $566,955,000. However, this increase in total sales is somewhat deceiving. The Federal Reserve inflation estimate for producers in the pulp, paper, and allied products industry was 6.8% in 1984. As a result the production index for the R.P.B. industry dropped about 1% to 68.8. Without inflation total sales in the R.P.B. industry would have actually dropped to approximately $531,100,000.

The average annual growth rate in sales from 1967 to 1984 was 4.72%. Total industry sales in 1988 are projected at $681,750,000 using the same annual growth as seen above. Inflation can mask real sales growth figures and make them appear better than actually the case. Historically (1967 to 1984), inflation in the paper and allied products industry has averaged 7% annually. If the historical sales growth and inflation rates are used to project a RPB Production Index, we find an average annual decrease of 2.18% and an estimated index of 63.0 in 1988.

There was a wide range of relative performance among the different geographic regions in 1984. The percent increase in billings over the last 12 months for 1983 and 1984 is given below:

Division	Percent Change 1984 to 1983	Percent Change 1983 to 1982
MW (Midwest)	+31.3	+23.0
PACIFIC COAST	+17.1	+5.9
SOUTHERN	+12.3	+8.3
NEW ENGLAND	+ 9.0	+6.9
MW (Western)	+ 4.9	+6.2
EAST (Central)	+ 2.5	+6.0
EAST (Empire)	+ 2.5	-2.9
EAST (Metro)	-13.6	+23.8

The Midwest sector continued its strong growth with a 31.3% jump in billings. The Pacific Coast, Southern, and New England Divisions improved their performance over last year and outpaced the 6.8% inflation rate. The Metro sector of the Eastern division went from the highest growth in 1983 to a 13.6% reduction in billings in 1984.

TABLE 2A

HISTORICAL SALES AND PRODUCTION SERIES

(1967 = 100)

Year	(1) R-P-B Industry's Annual Sales	(2) Year to-Year % Change	(3) R-P-B Sales Indices	÷	(4) Paper & Allied Products Prod. Price Indices	=	(5) R-P-B Production Indices
1967	$258,944,000	+ 2.4	100.0		100.0		100.0
1968	276,552,000	+ 6.8	106.8		101.1		105.6
1969	286,231,000	+ 3.5	110.5		104.0		106.2
1970	284,514,000	- 0.6	109.9		108.2		101.6
1971	269,719,000	- 5.2	104.2		110.1		94.6
1972	286,981,000	+ 6.4	110.8		113.4		97.7
1973	317,975,000	+10.8	122.8		122.1		100.6
1974	351,999,000	+10.7	135.9		151.7		89.6
1975	316,799,000	-10.0	122.3		170.4		71.8
1976	364,635,000	+15.1	140.8		179.4		78.5
1977	394,900,000	+ 8.3	152.5		186.4		81.8
1978	428,467,000	+ 8.5	165.5		195.6		84.6
1979	464,458,000	+ 8.6	179.4		219.0		81.9
1980	484,430,000	+ 4.3	187.1		249.2		75.1
1981	516,887,000	+ 6.7	199.7		273.7		73.0
1982	485,357,000	- 6.1	187.4		288.5		65.0
1983	534,863,000	+10.2	206.6		298.1		69.3
1984	566,955,000	+ 6.0	218.9		318.3		68.8

1967 - 1984 Average Annual Growth Rate: 4.72%

1988 Projected Sales**: $681,750,00

*Obtained by dividing each year's sales by $258,944,000, the sales in the base year, 1967.

**Projection assumes that the annual average growth rate of 4.72% is maintained during the years 1985 to 1988.

Comparative Performance of the R. P. B. Industry and Paper Related Industries

The production indices given in Table 2B provide a comparison of the R.P.B. industry performance against other similar industries. The indices of the other industry groups are from the Federal Reserve's statistical data on national industrial production. The R.P.B. index is calculated in Table 2A. It is not separated by the Federal Reserve but considered part of the paperboard container segment.

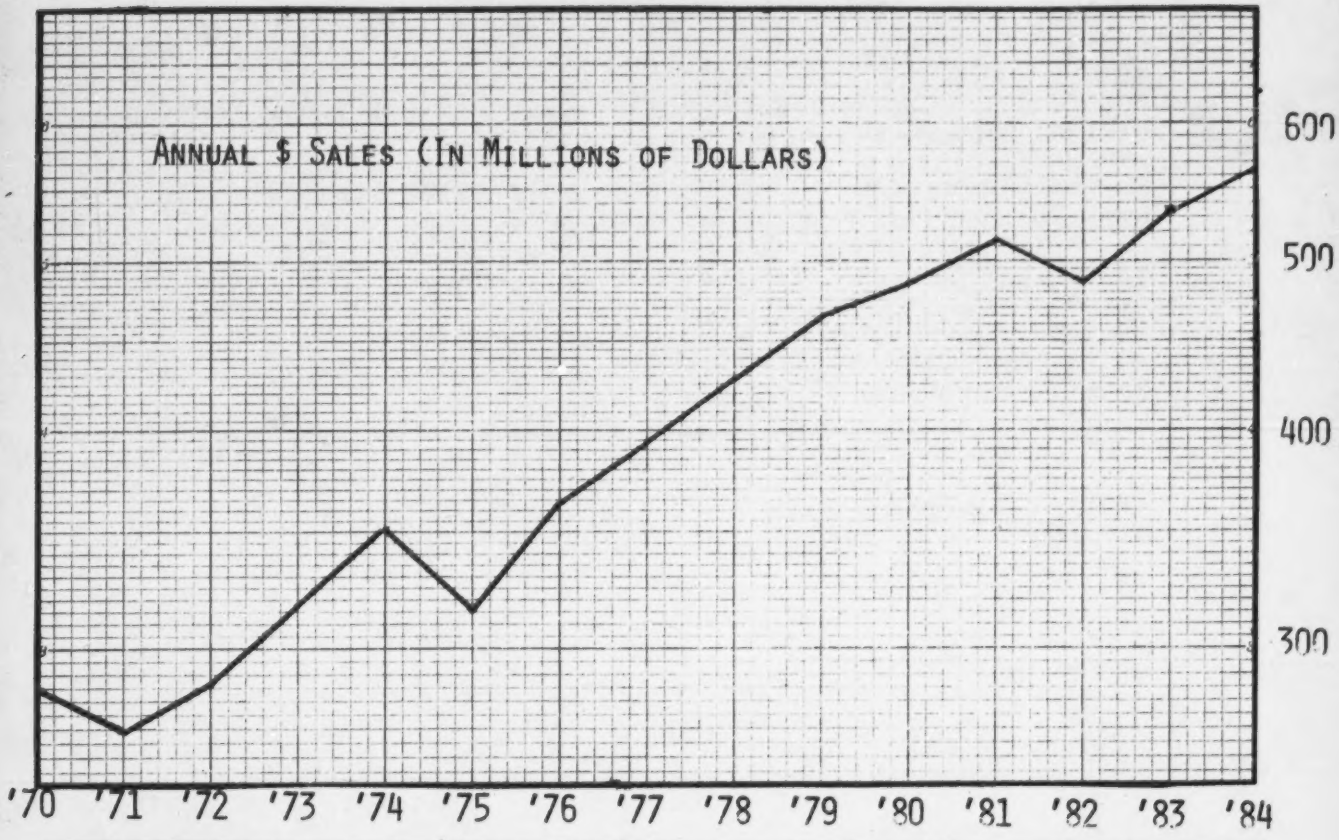
A review of the annual growth rates from 1983 to 1984 reveals that production in all segments grew slower than in 1983. However, the R.P.B. production index was the only one to actually decrease in 1984.

Table 2B

Comparative Production Indices

Industry	Production Indices			Annual Growth (Percentage Change)		
	1984	1983	1982	83/84	83/82	82/81
Rigid Paper Box	68.8	69.3	65.0	-0.7	+6.6	-8.0
Paper and Products	174.4	164.3	149.6	+6.1	+9.8	-5.4
Paperboard	167.4	155.5	142.4	+7.7	+9.2	-12.0
Paperboard Containers	163.9	155.4	143.9	+5.5	+8.0	-6.1
Converted Paper Products	206.7	194.1	175.4	+6.5	+10.7	+1.9

CHART 1 - R-P-B INDUSTRY'S DOLLAR SALES & SALES INDEXES: SEMI-LOG SCALES



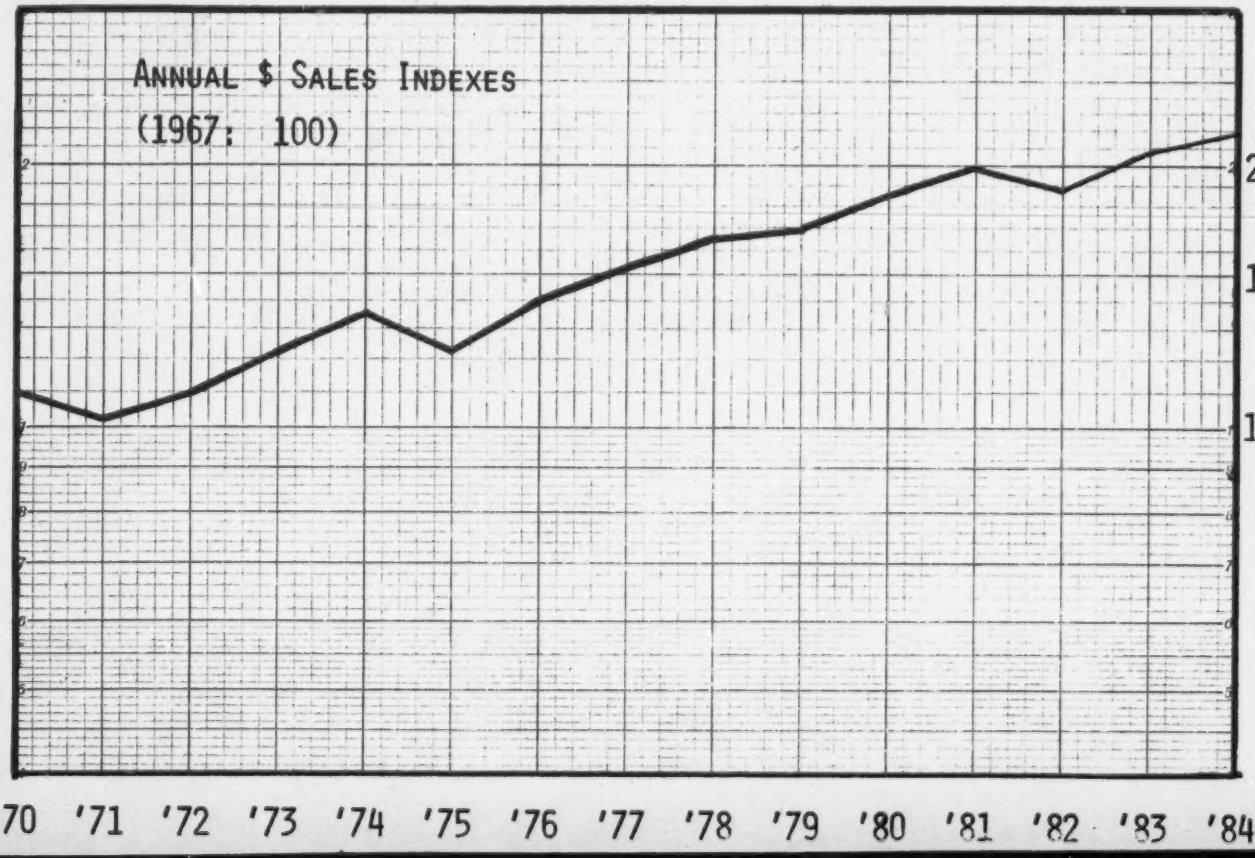
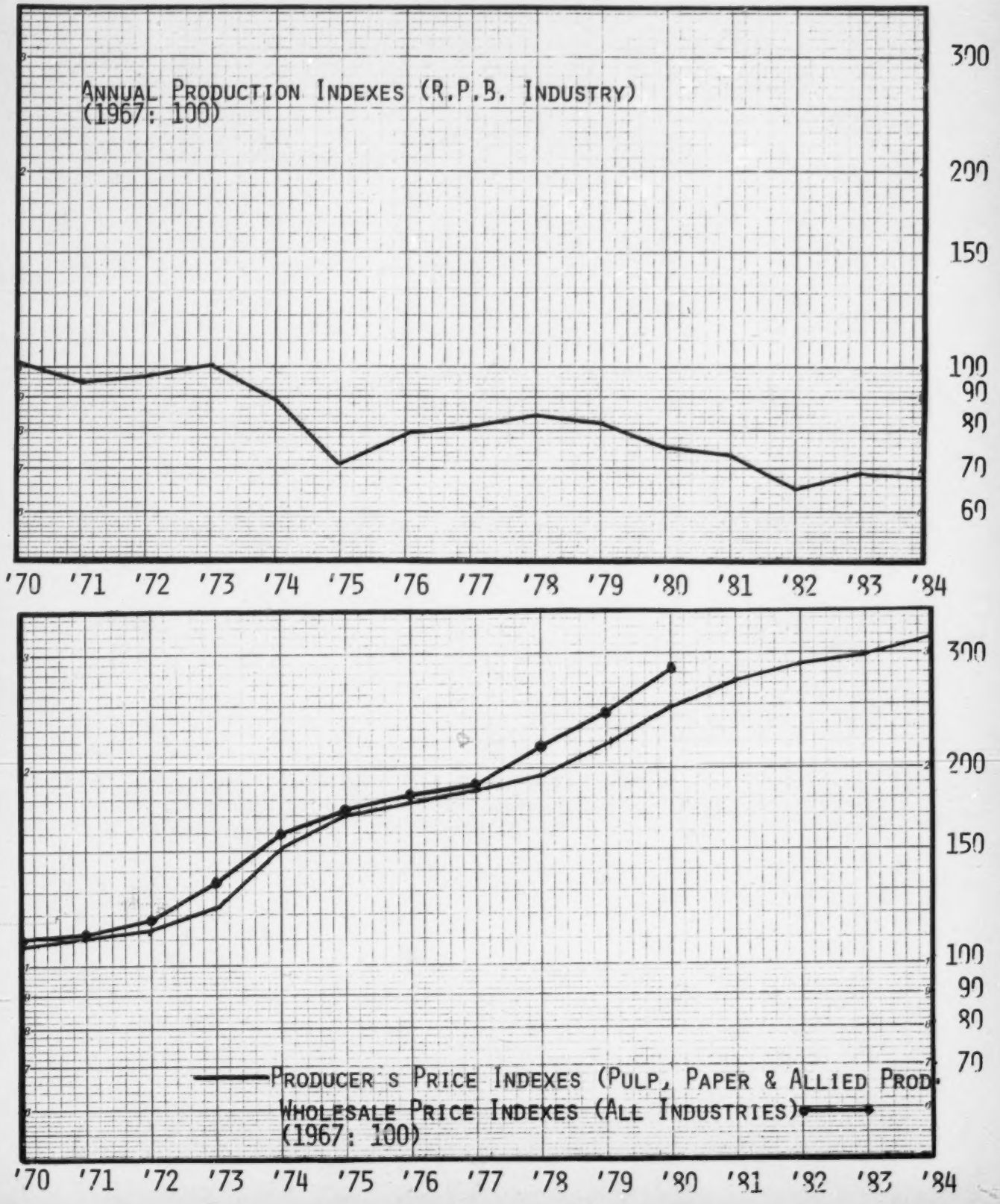


CHART 2 - WHOLESALE PRICE INDEXES & R.P.B. INDUSTRY'S PROD. INDEXES: SEMI-LOG SCALES



III. PROFILES OF THE R.P.B. INDUSTRY

Profit Performance (Tables 3 and 4 and Chart 3)

Net Profits Before Taxes for the companies reporting dropped in 1984 to 5.1%, although they still remained higher than 1982 levels. The reduction in profits of 22.8% resulted from the profit margin dropping from 7% to 5.1%. This decline was still 64.5% above 1982 levels, and was partially offset by a 6% increase in sales volume. For 1984, industry profits were $29 million on $567 million sales as opposed to $37 million on $535 million sales in 1983.

The erosion in profitability stemmed directly from increases in the cost of sales. As percent of sales material costs rose a very modest 0.1 of a percentage point; however, total factor payroll increased by 1.3 percentage points and manufacturing expenses by 2.0 percentage points. A 1.2 percentage point increase in supervision payroll as percent of sales represents 5.7% increase in total payroll expense and returns the labor costs in the industry to their 1982 levels. The 2.0 percentage point increase in manufacturing expenses to 11.5% represents a percentage increase of 21%. However, this is still below the 1982 level of 12.2%.

Non-manufacturing expenses began a downward movement, decreasing by 1.5 percentage points. This reduction was led by a 2.6 percentage points decrease as a percent of sales in general and administrative costs. The drop in total general and administrative costs was offset by a 1.1 percentage points increase as percent of sales in selling expense. The reduction in general and administrative expenses demonstrates the industry's intention to operate "lean and mean" as they did in the recent recession. With the increased sales of 6%, absorption of fixed cost overhead over more volume can only improve the industry's profitability. Table 4 shows the breakdown.

Several performance ratios can be used to examine the industry gross overhead per direct labor dollar giving one measure of efficiency--how much support is required for a certain amount of work. Although the ratio can be affected by changes in classification between direct and indirect labor, it can show a trend especially when used with other measures. In 1984, the ratio dropped by 4.3%, while a similar measure which includes both labor and materials decreased by 1.1%. All told, these ratios confirm the increase in labor expense without the

corresponding increase in price. Hence, the industry has experienced a modest labor cost inflation, and has not been able to pass the increased cost through to the customer. Actually, the ratio has inflated this result due to increased volume reducing the amount of overhead absorption required per unit.

Performance by Geographic Region

Table 4 shows that the Western region led the rest of the U.S. in profitability (although data from the south is inconclusive because of insufficient southern region respondents). This was primarily due to the Western region's lower material and labor costs. The Western region actually decreased their material costs in 1984; however, their increase of 2.4 percentage points of factory payroll labor as a percent of sales was the most dramatic labor increase in the industry. Interestingly enough, the major portion of this increase can be attributed to supervision. Indirect labor costs increased 39% in the West or 1.9 percentage points as measured as a percent of sales. The West also had the lowest non-manufacturing expenses in the industry.

The Central region's reduced profitability stems from a 3 percentage point increase in manufacturing expenses as measured as a percent of sales or a 31% increase in total manufacturing expenses 1984 vs. 1983.

The key performance measures in Table 6 show a higher ROA for the Central region, as well as the least overhead per labor dollar. The Central companies were able to service higher level of sales with their asset base; sales to assets is 2.61 in the central region versus 1.44 in the West. Both of these measures are up from 1982.

Performance by Company Size (Tables 5, 6, 7, 8, and 9)

The small companies performance in 1984 dramatically improved, although they still trailed their larger counterparts. In 1984 they were profitable as compared to 1983, when they sustained a loss. A 2.9 percentage point reduction in material costs was offset by an increase of 1.5 percentage point in payroll and a 1.7 percentage point increase in manufacturing expenses. Direct labor led the increase by posting a 5.1 percentage point advance. Supervision costs dropped by 3.6 percentage points as measured as a percent of sales. The key to the small companies' return to profitability was a drastic

improvement in non-manufacturing expense. A 5 percentage point drop was the product of a 7 percentage point reduction in general and administrative expense. The smaller companies still have the highest operating expense due to high delivery and selling costs. The lower ratios in Table 7 are simply a product of having too little volume to spread overhead. Of interest, however, is the capital structure of the smaller companies. Their high dependence on debt means a much higher financing burden.

The companies ranging from $825,000 to $200,000,000 faced much reduced profitability due to an 8.8 percentage point increase in labor costs as measured as a percent of sales. Only 3.6 percentage points of this increase was due to direct labor. The companies experienced a 5 percentage point increase in supervision costs. Accordingly, their gross overhead to direct labor to $3,500,000 ratio dropped.

The companies ranging from $2,000,000 were the only group to improve performance in 1984, and were the most profitable with a margin of 11.8 percent. This 2.8 percentage point improvement was a result of reductions in material costs by 2.8 percentage points and labor by 5.5 percentage points as measured as a percent of sales. The labor cost improvement came from a 3.6 percentage point reduction in supervision expense and a 0.9 percentage point decrease in direct labor. Manufacturing expense almost doubled, increasing by 6.8 percentage points and offsetting impressive gains in the other areas.

The large companies' only areas of improvement were a reduction of 1 percentage points in general administration expense and direct labor. Costs increased in all other areas. The most damaging were percentage point increases in material costs (2.4%), supervision (1.9%), and manufacturing expenses (1.8%).

TABLE 3

GENERAL SUMMARY OF INDUSTRY WIDE PERFORMANCE MEASURES

Item	1984	1983	1984/1983 % Change
Industry Sales	$566,955,000	$534,863,000	6.0%
Sales Index (1967 = 100)	218.9	206.5	6.1%
Production Index (1967 = 100)	68.8	69.3	-0.7%
Industry Profits (Before Taxes)	$ 28,914,705	$ 37,440,439	-22.77%

Condensed Operating Statement Data as a Percentage of Sales

	1984	1983	Percentage Points Change
1. Net Sales	100.0%	100.0%	0.0
2. Material Costs	32.7%	32.6%	0.1
3. Total Factory Payroll	29.2%	27.9%	1.3
4. Manufacturing Expenses	11.5%	9.5%	2.0
5. Total Cost of Sales	73.4%	70.0%	3.4
6. Gross Profit on Sales	26.6%	30.0%	-3.4
7. Non-Mfg. Operating Expense	21.2%	22.7%	-1.5
8. Other Expense/Income	0.3%	0.3%	0.0
9. Total Non-Mfg. Expense	21.5%	23.0%	1.5
10. Net Profit Before Taxes	5.1%	7.0%	-1.9
Balance Sheet Data			
11. Total Assets	100.0%	100.0%	0.0
12. Total Liabilities	60.8%	54.3%	6.5
13. Total Net Worth	39.2%	45.7%	-6.5
Financial Ratios			
Total Costs & Exp/Sales	94.9%	93.0%	+1.9
Gross Overhead/Direct Labor	178.3%	185.5%	-7.2
Gross Overhead/(Direct Labor+Mat'l)	72.5%	73.0%	-0.5
Admin. & Gen. Exp./Direct Labor	53.5%	68.6%	-15.1
Net Sales/Assets (times)	1.28	1.08	0.2
Return on Assets (Before Taxes)	6.5%	7.6%	-1.1

TABLE 4

COMPARATIVE PERCENTAGE PERFORMANCE

BY GEOGRAPHICAL DIVISIONS

1984

Condensed Operating Statement Data as a Percentage of Sales	U.S. TOTAL %	NE+E MET+C %	S* %	MW+W + PC %	Your Company %
1. Net Sales	100.0	100.0	100.0	100.0	100.0
2. Material Costs	32.7	33.2	32.0	31.3	---
3. Total Factory Payroll	29.2	28.8	33.4	27.2	---
4. Manufacturing Expenses	11.5	12.6	8.1	12.9	---
5. Total Cost of Sales	73.4	74.6	73.5	71.4	---
6. Gross Profit on Sales	26.6	25.4	26.5	28.6	---
7. Non-Mfg. Operating Expense	21.2	19.5	29.4	19.4	---
8. Other Expense/Income	0.3	0.2	1.4	0.2	---
9. Total Non-Mfg. Expense	21.5	19.7	30.8	19.6	---
10. Net Profit Before Taxes	5.1	5.7	-4.3	9.0	---
Expense Detail as a Percentage of Sales	**%**	**%**	**%**	**%**	**%**
Factory Payroll - Item 3					
3a. Direct Labor	22.4	22.1	28.4	20.4	---
3b. Supervision & Indirect	6.8	6.7	5.0	6.8	---
% Depreciation Incl. in Item 4	19.9	28.7	5.8	9.8	---
Operating Expense - Item 7					
7a. Delivery	3.5	2.8	7.3	3.3	---
7b. Selling	5.8	6.2	5.8	5.0	---
7c. Gen. & Administration	11.9	10.5	16.3	11.1	---
% Exec. Salary Incl. in Item 7c	---	41.7	37.7	35.5	---

*The results obtained for the Southern Geographical Division should be interpreted cautiously. The results shown may not be statically significant due to an insufficient number of survey respondents in the "S" Division.

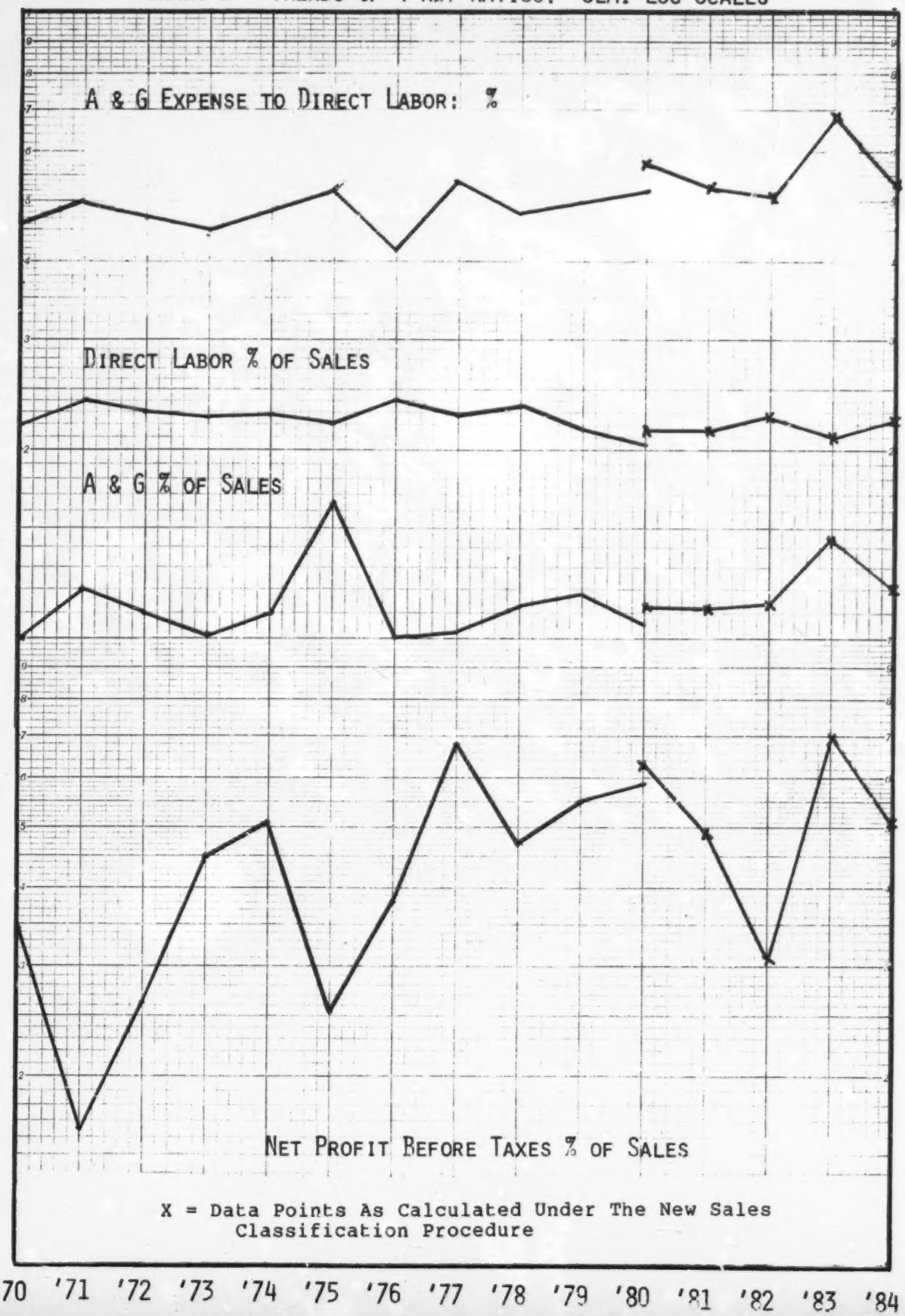
TABLE 5

COMPARATIVE PERCENTAGE PERFORMANCE

BY COMMON SIZE

Condensed Operating Statement Data as a Percentage of Sales	1984 SALES DOLLAR VOLUME 0 to 825M	825M-2000M	2000M-3500M	3500M+	Your Company
	%	%	%	%	%
1. Net Sales	100.0	100.0	100.0	100.0	100.0
2. Material Costs	30.6	31.5	30.7	35.2	---
3. Total Factory Payroll	32.4	32.7	22.6	28.9	---
4. Manufacturing Expenses	11.4	9.4	15.3	10.6	---
5. Total Cost of Sales	74.4	73.6	68.6	74.7	---
6. Gross Profit on Sales	25.6	26.4	31.4	25.3	---
7. Non-Mfg. Operating Expense	24.1	21.6	20.2	19.8	---
8. Other Expense/Income	0.4	(0.6)	(0.6)	1.0	---
9. Total Non-Mfg. Expense	24.5	21.0	19.6	20.8	---
10. Net Profit Before Taxes	1.1	5.4	11.8	4.5	---
Expense Detail as a Percentage of Sales	%	%	%	%	%
Factory Payroll - Item 3					
3a. Direct Labor	27.3	23.1	19.6	20.5	---
3b. Supervision & Indirect	5.1	9.6	3.0	8.4	---
% Depreciation Incl. in Item 4	15.8	46.7	11.9	18.8	---
Operating Expense - Item 7					
7a. Delivery	4.9	1.6	4.3	3.0	---
7b. Selling	6.2	1.9	3.1	8.1	---
7c. Gen. & Administration	13.0	18.1	12.8	8.7	---
% Exec. Salary Incl. in Item 7c	50.1	33.9	35.3	22.4	---
Balance Sheet Data	%	%	%	%	%
11. Total Assets	100.0	100.0	100.0	100.0	100.0
12. Total Liabilities	78.0	25.2	49.4	51.5	---
13. Total Net Worth	22.0	74.8	50.6	48.5	---

CHART 3 - TRENDS OF 4 KEY RATIOS: SEMI-LOG SCALES



X = Data Points As Calculated Under The New Sales Classification Procedure

Table 6

COMPARATIVE PERCENTAGE PERFORMANCE BY:

1984 SALES DOLLAR VOLUME

	U.S. TOTAL	0 to 825M	825M-2000M	2000M 3500M	3500M+	NE+E MET+C	S*	MW+W + PC	Your Company
1. Total Costs & Exp/Net Sales	94.9%	98.9%	94.6%	88.2%	95.5%	94.3%	104.3%	91.0%	---
2. Gross Oh'D./D.L. .	177.7%	150.5%	173.3%	195.9%	194.1%	176.0%	154.6%	195.6%	---
3. Gross Oh'D./ (D.L. + MTL)	72.2%	70.8%	73.3%	76.3%	71.3%	70.5%	72.7%	77.2%	---
4. Net Worth/ Total Assets	39.2%	22.0%	74.8%	50.6%	48.5%	53.5%	--	57.4%	---
5. (Gen. & Admin.)/ D.L.	53.1%	47.6%	78.0%	65.3%	42.4%	47.5%	57.4%	54.4%	---
6. Net Sales/ Total Assets	1.28	.70	2.03	1.60	1.78	2.61	.38	1.44	---
7. Return on Assets before Taxes	6.5%	0.8%	11.0%	18.9%	8.0%	14.7%	-1.7%	13.0%	---

*Those results shown for the "S" Division may be statistically insignificant due to an insufficient number of survey respondents in this particular category.

Items with a -- mark could not be calculated to be representative figures due to the small number of companies responding to the particular survey question.

TABLE 7

MISCELLANEOUS PERFORMANCE RATIOS

ACCORDING TO COMPANY SIZE

	1984 SALES DOLLAR VOLUME				
	0 to 825M	825M-2000M	2000M-3500M	3500M+	Your Company
Inventory Turnover (times)	6.2	4.0	4.7	8.6	---
Labor Turnover (times)	0.8	1.7	1.3	1.4	---
Collection Period (days)	29.0	30.0	35.5	35.7	---

TABLE 8

AVERAGE NUMBER OF EMPLOYEES

ACCORDING TO COMPANY SIZE

	1984 SALES DOLLAR VOLUME				
	0 to 825M	825M-2000M	2000M-3500M	3500M+	Your Company
Average Number of Employees					
Direct Labor	16.2	30.0	41.7	116.9	---
Indirect Labor	2.4	5.6	6.3	18.3	---
Sales, Administrative and Other ..	4.0	5.0	7.0	28.6	---

TABLE 9

COMPANY IMAGE STATISTICS

TITLE	RATIOS	1984 SALES DOLLAR VOLUME				
		0 to 825M	825M-2000M	2000M-3500M	3500M+	Your Company
Direct Productivity	Sales / Direct Labor Employment	$36,730	$36,357	$63,728	$63,809	---
Net Productivity	Sales / Total Employment	$76,328	$26,864	$48,279	$45,546	---
Administrative Load	Gen. & Admin. Expense / Direct Labor Employment	$ 4,787	$ 6,577	$ 8,163	$ 5,599	---
Depreciation Recovery	Depreciation Expense / Sales	1.8%	4.4%	1.8%	2.0%	---
Return on Equity	Net Profit Before Taxes / Net Worth	3.48%	14.7%	37.3%	16.4%	---
Employment Investment	Net Worth / Total Employment	$ 8,328	$ 9,902	$15,303	$12,433	---

TABLE 10

END-USE SURVEY OF INDUSTRY SALES

(Percent)

(Millions)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Textiles Apparel & Hosiery	7.5	3.7	4.8	7.3	4.5	4.4	5.5	3.3	3.4	5.1
Dept. Stores & Specialty Shops	9.9	10.7	10.6	10.1	8.3	6.8	7.1	5.6	7.2	4.3
Cosmetics & Soaps	1.8	5.3	5.1	3.3	4.3	5.5	3.9	1.4	1.4	5.3
Confections	13.3	10.5	8.1	9.0	15.7	12.6	18.0	16.6	17.2	16.8
Stationery & Office Supplies	9.7	12.5	13.2	11.8	15.0	13.5	9.3	17.1	19.1	8.3
Jewelry & Silverware	5.2	4.2	14.0	10.7	7.6	9.3	9.7	10.0	6.3	12.8
Photographic Product & Supplies	2.2	2.4	2.7	3.0	3.5	4.5	4.3	4.5	3.6	4.8
Shoes & Leather	4.8	1.3	1.1	3.7	0.4	0.3	0.2	0.3	0.4	0.5
Drugs, Chemicals & Pharmaceuticals	6.9	9.3	7.3	4.9	13.1	7.5	7.8	6.3	6.7	9.5
Toys & Games	2.3	3.3	2.6	2.1	1.4	1.4	1.8	2.9	2.2	5.8
Hardware & Household Supplies	7.0	6.4	6.2	5.4	3.4	5.5	4.0	7.5	6.7	4.3
Food & Beverages	2.9	3.6	0.3	2.9	5.4	4.3	3.9	1.4	1.5	0.5
Sporting Goods	1.9	0.7	1.0	1.2	1.7	1.2	1.2	0.4	0.4	0.7
Other Major Customers (A)										
(a) Electronics	3.4	4.2	2.6	2.9	4.3	3.6	3.5	3.9	3.4	3.9
(b) Educational	3.9	3.9	6.5	5.2	3.8	3.7	4.4	2.7	2.7	1.9
(c) Other	12.2	5.6	7.1	10.7	1.1	8.4	7.0	7.8	7.9	8.2
Misc. Customers	5.1	12.4	6.8	5.8	6.5	7.5	8.4	8.3	9.9	7.5
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

TABLE 11

RIGID BOX NEW & USED MACHINERY PURCHASED

	1984		
Sales Size	Total	No. of Co.'s*	Avg. per Co.
$0 - 825M			
New	0	0	
Used	$ 0	0	
$825M - 2000M			
New	$ 67,483	4	$16,871
Used	$ 53.446	2	$26,723
$2000M - 3500M			
New	$920,520	2	$460,260
Used	$235,284	3	$78,428
$3500M +			
New	$127.058	4	$31,764
Used	$294,218	4	$73,554

*No. of Co.'s = Number of Companies that reported purchases.